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EXAMINER

SHEDRICK, CHARLES TERRELL

ART UNIT

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2617

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/766,409

Applicant(s)

HOEBEN, MAARTEN

Examiner

Charles Shedrick

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 December 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 February 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 reads in part,

one or more values that define

(a) a first reservation offset time interval upon the conclusion of which a first signal is transmitted over a combination of the first shared communications channel and a second shared communication channel,

Careful examination of the specification shows that a key attribute of the invention is that elements are added to a prior art reservations that define various time intervals for reserving the channel bandwidth. The above claim limitation outlines that one or more values define a first reservation offset time interval, however it is unclear as to rather upon the conclusion of which a first signal is transmitted over a combination of the first shared communications channel and a second shared communication channel is being defined strictly by the reservation offset interval or the Applicant is simply describing what occurs after the offset interval.

Based on part it appears that an offset is reserved in time for bandwidth and after the offset the wide signal is transmitted over the first shared channel (i.e., first channel noted above) and a second shared channel (i.e., any second shared channel).

Part (B) of claim 1 reads:

(b) a second reservation duration time interval during which a first-shared communication channel and the second-shared communication channel are reserved, and upon the conclusion of which the transmission of the first signal over the combination of said first shared-communications channel and said second shared-communications channel is ended, wherein said second time interval is after said first time interval.

It appears the one or more values are now defining a second reservation duration time interval during which a first-shared communication channel (i.e., any first shared channel) and the second-shared communication channel are reserved (i.e., the second shared channel a first signal is transmitted over at the conclusion of the first reservation offset interval).

However, the following remains unclear. *upon the conclusion of which the transmission of the first signal over the combination of said first shared-communications channel* (i.e., which said first-shared communication channel ? at the first-shared communication channel which is somehow defined by part (a) or the first shared communication channel defined by the second reservation time interval ? antecedent basis is what I trying to clarify here) *and said second shared-communications channel is ended, wherein said second time interval is after said first time interval* (i.e., is this strictly the first offset time interval ?). Is it somewhat unclear because it seems that the values define a time interval which is interpreted from the specification, but unclear as to if the Applicant is attempting to define in someway what happens during the defined intervals.

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Regarding, claim 13. Claim 13 has similar issues as claim 1. In short claim 13 appears to read as follows: a prior art reservation message is modified to include a reservation offset time interval and a second reservation duration time interval (e.g., part ii) reserving a first channel and a second channel defined in time by the first time interval and the second time interval. At the end of the first defined time interval a first signal is transmitted over the first reserved channel and a second shared channel (i.e., is this the reserved second channel) since at the conclusion of the defined time intervals the first signal transmitted over the combination of the first shared channel and the said second shared channel ends.

In claim 13, It appears that a first and second channel is reserved in part (b), a first time interval (i.e., is this the offset ?) is defined in part (i) for the first and second shared channels of part (b) and at the conclusion of the first time interval defined for a first and second shared communication channel a first signal is transmitted over the first-shared channel (i.e., this is the reserved channel) during the first time interval and a second shared channel (i.e., any arbitrary unreserved or reserved channel ??). Then a second time interval is defined for the reserved first and second shared channels and at the conclusion of the second time interval (i.e., after the second time interval ends) the first signal from (i) over said first channel (i.e., the reserved first shared channel from (b) during a first time interval defined in (i)) and said second shared communication channel (i.e., which second shared channel. Is this a second channel that was reserved?).

The examiner respectfully submits that the above explanation is intended /or an attempt to clarify the claim. It is unclear as to what exactly is being defined by the values based on the language of the claims. Careful examination of the specification notes in part that the novelty over prior art is

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in the additional values that define the reservation message over an RTS message (e.g., paragraph 0037) coupled with certain features such as reserving and transmitting over multiple channels (e.g., which is also well-known as point out in paragraph 0043). However, it appears the novel features are not clear which perhaps hinders the claimed invention from distinguishing from prior art.

Response to Arguments

Applicant's arguments filed 12/07/06 have been fully considered but they are not persuasive.

Please read carefully remarks regarding 112 above. The 112 issues above have been outlined to assist the Applicant in understanding the grounds of the following rejection and in an effort to clarify the claims and make any necessary changes.

Regarding claims 1 and 13. A careful examination of the prior art already made of record indicates that the time intervals are defined as pointed out below in the following explanation. Again, the Examiner respectfully submits that the manner in which the claim language reads on what the values define does not overcome the previous rejection. The claim language is written in a manner in which the values define time intervals, not necessarily or clearly defining what happens or how during the time intervals (i.e., Novelty read from the specification) and therefore still reads in the prior art which also defines time intervals in a reservation message including an offset).

According to the Applicant's specification the reservation message 502 comprises a reservation offset 521 and the reservation duration (paragraph 0055) and based on the duration field of message 601, which equals the sum of reservation offset 611 and reservation duration 612, refrain from transmitting over channel 203-1 until after the completion of reservation duration

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612, in accordance with the legacy medium access control. Enhanced stations 202 other than 202-i (including station 202-j) and access point 201 also receive message 601 over channel 203-1, and, as a result, refrain from transmitting over channel 203-1 during reservation duration 612.

Giles teaches in at least col. 6 lines 37-53 that when an agent sends a request-to-send RTS message, it embeds in the message, in the data field thereof, the duration of the reservation measured from the end of the request-to-send RTS message as illustrated in FIG. 4a. The duration of the reservation will include an initial key-up period required by the requesting agent to prepare to receive a clear-to-send CTS message from the intended recipient, a period during which the clear-to-send CTS message is received, another key-up period during which the requesting agent prepares to send a data packet, and a period during which the data packet is sent. When an agent sends a clear-to-send CTS message, it embeds in the message the time remaining in the RTS reservation. The CTS reservation will therefore include the time during which the data packet is sent and the preceding key-up period – this is equivalent to a reservation offset time (key up period) upon the conclusion of which a first signal (i.e., data packet is sent) and second time period (period of reservation for the actual data to be transmitted) upon the conclusion of which the first signal (i.e., a data packet) is ended. Giles does not specifically teach reserving and transmitting over multiple channels.

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However, Katinakis et al. teach in col. 3 lines 44-57 that for *higher data rates* the MS may select and reserve multiple time slots in each channel. The MS transmits the packets to multiple base stations over multiple channels.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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Claims **1-3,5,6,8-14**, and **17-20** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Giles et al. (U.S. Patent # 5,231,634)** in view of **Katinakis et al. (U.S. Patent # 6,389,039 B1)**.

Consider **claims 1 and 13**, Giles et al. teach a method and apparatus comprising: a receiver for receiving a first message over a first shared-communications channel (i.e., receiving from first, second or third agent) (**abstract, col. 2 line 65- col. 4 line 21**), wherein said first message comprises: (i) a notification that said first shared-communications channel has been reserved (i.e., a RTS or CTS message) (**abstract, col. 3 lines 3-22 and lines 40- line 58, col. 5 line 62 - col. 6 line 10, col. 9 lines 40-67**) (ii) one or more values that define (a) a first reservation offset time interval (i.e., key up time) upon the conclusion of which a first signal is transmitted (i.e., first signal is transmitted following the key up time)(**abstract, col. 3 lines 3-22, col. 3 lines 40-42, col. 5 lines 49-55, col. 6 lines 37-67, and col. 9 lines 40-67**) and (b) a second reservation duration time interval (i.e., reservation duration for at least the data portion or the equivalent type of signal)during which a first shared communication channel are reserved and upon the conclusion of which the transmission of the first signal over the first shared channel is ended (i.e., **at least col. 6 lines 37-67**) , wherein said second time interval is after said first time interval reserved (i.e., second duration is after first duration/ key-up period) (**abstract, col. 3 lines 3-22, col. 3 lines 40-42, col. 5 lines 49-55, col. 6 lines 37-67, and col. 9 lines 40-67**) .

However, Giles et al. does not clearly disclose a second shared-communications channel or transmitting over the combination of said first shared-communications channel and said second shared-communications channel.

In the same field of endeavor, Katinakis et al. clearly show and disclose reserving a second shared-communications channel and transmitting over the combination of said first

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shared-communications channel and said second shared-communications channel (see abstract, col.3 line 18-57, col. 5 lines 30-42, col. 6 lines 50-58, see also figures 2-3b).

Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Giles et al. to include transmitting over the combination of said first shared-communications channel and said second shared-communications channel as taught by Katinakis et al. for the purpose of attaining higher bandwidth transmissions.

Consider **claims 2 and 14 as applied to the apparatus and method of claims 1 and 13 respectively**, Giles et al. as modified by Katinakis et al. clearly disclose wherein said first message is also received by a station that always transmits via one shared-communications channel at a time (i.e., stations contend for channel access)(**col. 3 lines 50-57**), and wherein said notification causes said station to refrain from transmitting until after said second time interval (**col. 3 lines 50-57**).

Consider **claim 3 and as applied to the apparatus of claim 1**, Giles et al. clearly disclose wherein said transmitter is also for transmitting (see **col. 3 lines 3-22 and lines 33-35**), after said second time interval, a third signal (i.e., data, cts, rts, ack) (**col. 5 line 62 col. 6 line 10. col. 7 line 52-col.8 lines 20**).

However, Giles et al. does not clearly disclose transmitting over the combination of a plurality of shared-communications channels.

In the same field of endeavor, Katinakis et al. clearly show and disclose transmitting over the combination of said first shared-communications channel and said second shared-communications channel (see abstract, col.3 line 18-57, col. 5 lines 30-42, col. 6 lines 50-58, see also figures 2-3b).

Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Giles et al. to include transmitting over the combination of a plurality of shared-communications channels as taught by Katinakis et al. for the purpose of attaining higher bandwidth transmissions.

Consider **claim 5** and **as applied to the apparatus of claim 1**, Giles clearly show and disclose the claimed invention except wherein said transmitter is also for, prior to receiving said first message: transmitting over each of a plurality of shared-communications channels a respective message for reserving that shared-communications channel; and transmitting a third signal over the combination of said plurality of shared-communications channels.

In the same field of endeavor, Katinakis et al. clearly show and disclose wherein said transmitter is also for, prior to receiving said first message (**col. 4 lines 7-25**): transmitting over each of a plurality of shared-communications channels a respective message for reserving that shared-communications channel (**see abstract, col.3 line 18-57, col. 5 lines 30-42, col. 6 lines 50-58, see also figures 2-3b**); and transmitting a third signal over the combination of said plurality of shared-communications channels (i.e. data, voice, channeling frames, etc.) (**see abstract, col.3 line 18-57, col. 5 lines 30-42, col. 6 lines 50-58, see also figures 2-3b**).

Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Giles et al. to include prior to receiving said first message: transmitting over each of a plurality of shared-communications channels a respective message for reserving that shared-communications channel; and transmitting a third signal over the combination of said plurality of shared-communications channels as taught by Katinakis et al. for the purpose of reserving multiple channels for a higher bandwidth allocation.

Consider **claim 6 and as applied to the apparatus of claim 1**, Giles et al. clearly show and disclose wherein said receiver is also for receiving, during said first time interval, a second message (**abstract, col. 3 lines 3-22 and lines 40- line 58, col. 5 line 62- col. 6 line 10, col. 9 lines 40-67**).

However, Giles et al does not specifically disclose a second shared-communications channel associated with reserving said second shared-communications channel.

In the same field of endeavor Katinakis et al. clearly show and disclose a second shared-communications channel associated with reserving said second shared-communications channel (i.e., a plurality of channels interactively communicating) (**see abstract, col.3 line 18-57, col. 5 lines 30-42, col. 6 lines 50-58, see also figures 2-3b**).

Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the invention of Giles et al. to include a second shared-communications channel (i.e., of a plurality of channels) associated with reserving said second shared-communications channel as taught by Katinakis et al. for the purpose of reserving multiple channels for a higher bandwidth allocation.

Consider **claim 8 and as applied to the apparatus of claim 1**, Giles et al as modified by Katinakis et al. clearly disclose wherein said second signal comprises a data message (**col. 4 lines 45-64, col. 6 lines 37-52**).

Consider **claims 9 and 19 and as applied to the apparatus of claim 1 and method of claim 13**, Giles et al. clearly disclose wherein said second signal comprises a reservation message for reserving said first shared-communications channel during a third time interval (i.e., receiving a reservation message during reserved state) (**col. 7 lines 65-col. 8 line 20**); and

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wherein said third time interval is after said second time interval (i.e., the reservation request is for channel allocation and the channel is allocated based on availability which would mean after the second time interval which has already been reserved in some cases)(**col. 7 lines 65-col. 8 line 20**); and wherein said transmitter is also for: transmitting, within said first time interval (i.e., see exceptions according to the state diagram) (**col. 3 lines 54-57 and also col. 7 lines 65-col. 8 line 20**); a third signal for reserving said shared-communications channel during said third time interval(**col. 3 lines 3-22, col. 3 lines 40-55, col. 5 lines 49-55, col. 6 lines 37-67, and col. 9 lines 40-67**), and transmitting, within said third time interval a fourth signal (i.e. a RTS,CTS, or ACK or data) (i.e., see exceptions according to the state diagram) (**col. 3 lines 54-57 and also col. 7 lines 65-col. 8 line 20**).

However, Giles does not disclose a signal over a second shared-communications channel and the transmitting over the combination of said first shared-communications channel and said second shared-communications channel.

In the same field of endeavor, Katinakis et al. clearly show and disclose transmitting over a signal over a second shared-communications channel (**see abstract, col.3 line 18-57, col. 5 lines 30-42, col. 6 lines 50-58, see also figures 2-3b**) and the combination of said first shared-communications channel and said second shared-communications channel (**see abstract, col.3 line 18-57, col. 5 lines 30-42, col. 6 lines 50-58, see also figures 2-3b**).

Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Giles et al. to include transmitting over the combination of a plurality of shared-communications channels as taught by Katinakis et al. for the purpose of attaining higher bandwidth transmissions.

Consider **claim 10** and as applied to the apparatus of **claim 9**, Giles et al. as modified by Katinakis et al. clearly disclose wherein said reservation message is also received by a station that always transmits via one shared-communications channel at a time (i.e., stations contend for single channel access)(**col. 3 lines 50-57**), and wherein said reservation message causes said station to refrain from transmitting until after said third time interval (**col. 3 lines 50-57**)

Consider **claims 11 and 20** and as applied to the apparatus of **claim 1** and method of **claim 13**, Giles et al. clearly disclose wherein said second signal comprises a reservation message comprising one or more values defining a third time interval (i.e., see figure 4a) (**col. 7 lines 65-col. 8 line 20**); and wherein said third time interval is after said second time interval (i.e., the reservation request is for channel allocation and the channel is allocated based on availability which would mean after the second time interval which has already been reserved in some cases)(**col. 7 lines 65-col. 8 line 20**); and wherein said transmitter is also for: transmitting, within said second time interval and after said first signal is transmitted (i.e., see exceptions according to the state diagram) (**col. 3 lines 54-57 and also col. 7 lines 65-col. 8 line 20**) and transmitting, within said third time interval, a fourth signal (i.e. a RTS,CTS, or ACK or data) (i.e., see exceptions according to the state diagram) (**col. 3 lines 54-57 and also col. 7 lines 65-col. 8 line 20**)

However, Giles et al. does not disclose a third signal over a second shared-communications channel.

In the same field of endeavor, Katinakis et al. clearly show and disclose transmitting over a signal over a second shared-communications channel for reserving said second shared-

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communications channel during said third time interval (see abstract, col.3 line 18-57, col. 5 lines 30-42, col. 6 lines 50-58, see also figures 2-3b).

Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Giles et al. to include transmitting over a signal over a second shared-communications channel for reserving said second shared-communications channel during said third time interval as taught by Katinakis et al. for the purpose of attaining higher bandwidth transmissions.

Consider **claim 12** and as applied to the apparatus of **claim 11**, Giles et al. as modified by Katinakis et al. clearly disclose wherein said reservation message is also received by a station that always transmits via one shared-communications channel at a time (i.e., stations contend for single channel access)(col. 3 lines 50-57), and wherein said reservation message causes said station to refrain from transmitting until after said third time interval (col. 3 lines 50-57)

Consider **claim 18** and as applied to the method of **claim 13**, Giles et al. as modified by Katinakis et al. clearly show and disclose the claimed invention further comprising: (c) executing, after (a) and prior to (b), a contention-based protocol to gain access to said first shared-communications channel (i.e., CSMA) (col. 4 lines 5-20 and col. 6 lines 60-66).

Consider **claim 17** and as applied to the method of **claim 13** Giles et al. clearly show and disclose the claimed invention further comprising: (c) receiving, during said first time interval, a second message over said second shared-communications channel associated with reserving said second shared-communications channel.

In the same field of endeavor, Katinakis et al. clearly show and further comprising: (c) receiving, during said first time interval, a second message over said second shared-

communications channel associated with reserving said second shared-communications channel (see abstract, col.3 line 18-57, col. 5 lines 30-42, col. 6 lines 50-58, see also figures 2-3b).

Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Giles et al. to include further comprising: (c) receiving, during said first time interval, a second message over said second shared-communications channel associated with reserving said second shared-communications channel taught by Katinakis et al. for the purpose of attaining higher bandwidth transmissions.

Claims 4,7,15, and 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Giles et al. (U.S. Patent # 5,231,634) in view of Katinakis et al. (U.S. Patent # 6,389,039 B1) and further in view of Li (U.S. Patent # 6,349,210 B1).

Consider claim 4 and as applied to the apparatus of claim 3, Giles et al. as modified by Katinakis et al. clearly disclose the claim invention except wherein said transmitter is also for, prior to transmitting said third signal, transmitting sequentially over each of said plurality of shared-communications channels a respective message for reserving that shared-communications channel.

However, in the same field of endeavor, Li clearly show and disclose wherein said transmitter 12 (see Li figure 1) is also for, prior to transmitting said third signal, transmitting sequentially over each of said plurality of shared-communications channels a respective message for reserving that shared-communications channel (see also Li figure 1, abstract, col. 3 lines 20-35).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Giles et al. as further modified by Katinakis et al. to include

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transmitting sequentially over each of said plurality of shared-communications channels a respective message for reserving that shared-communications channel for the purpose of simplifying the reception and reassembly of information.

Consider **claim 7** and **as applied to the apparatus of claim 1**, Giles et al. as modified by Katinakis et al. clearly show and disclose the claimed invention including executing a contention-based protocol prior to said transmitter transmitting said second signal over said first shared-communications channel (i.e., CSMA/CD) (**col. 4 lines 5-20 and col. 6 lines 60-66**).

However, Giles et al. as modified by Katinakis et al. does not specifically show and disclose prior to said transmitter transmitting said second signal over said first shared-communications channel except for further comprising a processor for: sending signals to said transmitter, receiving signals from said receiver.

In the same field of endeavor, Li clearly show and disclose a processor **16 and 26 (see Li figure 1)** for: sending signals to said transmitter **12 and 22 (see Li figure 1)**, receiving signals from said receiver **14 and 24 (see Li figure 1)**(see also **Li col. 4 lines 25-52 and col. 16 lines 8-35**).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Giles et al. as further modified by Katinakis et al. to include a processor for: sending signals to said transmitter receiving signals from said receiver as taught by Li for the purpose of communicating.

Consider **claim 15** and **as applied to the method of claim 13**, Giles et al. clearly show and disclose further comprising: (c) transmitting, after said second time interval (i.e., transceiver

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is capable of transmitting during, before, or after, the reserved duration) (**col. 3 lines 3-22, lines 54-58**).

However, Giles et al. does not show transmitting, after said second time interval sequentially over each of a plurality of shared-communications channels a respective message for reserving that shared-communications channel; and (d) transmitting a third signal over the combination of said plurality of shared-communications channels.

In the same filed of endeavor, Katinakis et al. clearly show and disclose transmitting, after said second time interval over each of a plurality of shared-communications channels a respective message for reserving that shared-communications channel (**see abstract, col.3 line 18-57, col. 5 lines 30-42, col. 6 lines 50-58, see also figures 2-3b**); and (d) transmitting a third signal over the combination of said plurality of shared-communications channels (**see abstract, col.3 line 18-57, col. 5 lines 30-42, col. 6 lines 50-58, see also figures 2-3b**).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time invention was made to modify Giles et al. to include transmitting, after said second time interval over each of a plurality of shared-communications channels a respective message for reserving that shared-communications channel; and (d) transmitting a third signal over the combination of said plurality of shared-communications channels as taught by Katinakis et al. for the purpose of allocation higher bandwidth channels.

However, Giles et al. as modified by Katinakis does not disclose transmitting, after said second time interval sequentially.

In the same field of endeavor, Li clearly show and disclose transmitting, after said second time interval sequentially (**see also Li figure 1, abstract, col. 3 lines 20-35**).

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Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Giles et al. as further modified by Katinakis et al. to include transmitting sequentially over each of said plurality of shared-communications channels a respective message for reserving that shared-communications channel for the purpose of simplifying the reception and reassembly of information

Consider **claim 16** and as **applied to the method of claim 13**, Giles et al clearly show and disclose further comprising: (c) transmitting, prior to receiving said first message (i.e., transceiver is capable of transmitting during, before, or after, the reserved duration) (**col. 3 lines 3-22, lines 54-58**).

However, Giles et al. does not show transmitting, after said second time interval sequentially over each of a plurality of shared-communications channels a respective message for reserving that shared-communications channel; and (d) transmitting a third signal over the combination of said plurality of shared-communications channels.

In the same filed of endeavor, Katinakis et al. clearly show and disclose transmitting, after said second time interval over each of a plurality of shared-communications channels a respective message for reserving that shared-communications channel (**see abstract, col.3 line 18-57, col. 5 lines 30-42, col. 6 lines 50-58, see also figures 2-3b**); and (d) transmitting a third signal over the combination of said plurality of shared-communications channels (**see abstract, col.3 line 18-57, col. 5 lines 30-42, col. 6 lines 50-58, see also figures 2-3b**).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time invention was made to modify Giles et al. to include transmitting, after said second time interval over each of a plurality of shared-communications channels a respective message for reserving

that shared-communications channel; and (d) transmitting a third signal over the combination of said plurality of shared-communications channels as taught by Katinakis et al. for the purpose of allocation higher bandwidth channels.

However, Giles et al. as modified by Katinakis does not disclose transmitting, after said second time interval sequentially.

In the same field of endeavor, Li clearly show and disclose transmitting, after said second time interval sequentially (see also Li figure 1, abstract, col. 3 lines 20-35).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Giles et al. as further modified by Katinakis et al. to include transmitting sequentially over each of said plurality of shared-communications channels a respective message for reserving that shared-communications channel for the purpose of simplifying the reception and reassembly of information.

Conclusion

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles Shedrick whose telephone number is (571)-272-8621.

The examiner can normally be reached on Monday thru Friday 8:00AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kincaid Lester can be reached on (571)-272-7922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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AU 2617
February 27, 2007


LESTER G. KINCAID
SUPERVISORY PRIMARY EXAMINER